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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,192	06/20/2002	John Victor James	201-0576	2806

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FORD GLOBAL TECHNOLOGIES, LLC.
SUITE 600 - PARKLANE TOWERS EAST
ONE PARKLANE BLVD.
DEARBORN, MI 48126

EXAMINER

HOANG, JOHNNY H

ART UNIT PAPER NUMBER

3747

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,192

Applicant(s)

JAMES ET AL.

Examiner

Johnny H. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-34 is/are allowed.
- 6) ☒ Claim(s) 1-14 and 35-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

1. The amendment filed on February 6, 2004 under 37 CFR 1.131 has been considered by examiner but is ineffective to overcome the new references.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14, and 35-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashimura et al (US 6,061,624) in view of Shomura (US 6,234,145 B1).

Regarding claims 1, and 35, the reference of Kashimura et al discloses the multi-cylinder engine combustion diagnostic apparatus and method including the following subject matters:

determining a performance parameter representative of engine output across a first group of cylinders based on an engine operating parameter (see fig. 4, and col. 4, lines 25-54);

determining a cylinder deviation parameter representative of engine output of a single combustion event in the cylinder (see fig. 7(a), 7(b); and col. 5, line 63 through col. 6, line 12); and calculating the cylinder specific performance parameter based on said performance parameter and said cylinder deviation parameter (see abstract; and col. 7, line 60 through col. 8, line 6). The reference of Kashimura et al does not disclose the first group of cylinders comprising at least three cylinders.

However, the reference of Shomura teaches an engine control device which including the group of three cylinders (col. 4, lines 23-40).

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the multi-cylinder engine combustion diagnostic apparatus and method of Kashimura et al for using the group of three cylinders, as taught by Takaoka et al.

Response to Arguments

4. Applicant's arguments filed February 6, 2004 have been fully considered but they are not completely persuasive. **Claims 1-43 are pending.**

Applicants have argued that the reference of Kashimura et al does not teach or suggest Applicant's claimed invention and Applicants further amended "first group of cylinders comprising at least three cylinders". More specifically, Applicants assert that the reference to Kashimura et al fails to disclose every element as set forth in Applicant's claims 1-14, and 35-43.

In response to applicant's arguments, the recitation according to the combination of Kashimura et al and shomura teaches all specific elements of the applicant's claims as refer to the above rejection.

Allowable Subject Matter

5. Claims 15-34 are allowed.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the

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THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (703) 308-2782. The examiner can normally be reached on Monday - Thursday (7:00Am-5: 30Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (703) 308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHH
April 14, 2004

Johnny H. Hoang
Examiner
Art Unit 3747


Willis R. Wolfe
Primary Examiner
Art Unit 3747